Consider $V(\Lambda)$, the integrable highest weight $\hat{sl}(n)$-module of highest weight $\Lambda$. The maximal weights are those that, when we consider the weight structure of $V(\Lambda)$, form something like a roof; the rest of the weights occur on strings stemming from the maximal weights. It is known that the set of maximal dominant weights of $V(\Lambda)$ is finite. We give explicit descriptions of maximal dominant weights for certain $\Lambda$ and examine the multiplicities of particular maximal dominant weights. To determine these multiplicities, we use combinatorial objects called extended Young diagrams. We discuss a relationship between multiplicity and avoiding permutations and exhibit this relationship for some low rank cases. (Received July 15, 2011)